

Acid malachite test

Def: : Chemical test used for diagnosis of Bleeding

Principle: Change in colour of indicator acc. to blood amount present in the Sample

Material

: Meat extract

Hb extraction test بكرة مثل بكرة

Reagent : ① Acid malachite green

0.1 gm malachite green powder
+ 25 ml of glacial acetic acid 30% → heating in water bath 60 °C / 10 m

→ Add 100 ml D.W and put in Dark glass bottle
② H₂O₂ 3%

Procedure



1 drop H₂O₂ 3%
1 drop Acid malachite green
0.7 ml meat extract

→ Shaking → allow to stand for 20 min

Result Judgment	Blue well bled fit for human Consumption	Light green Moderate bled fit for rapid Consumption	Dark green ill bled total Condemnation
-----------------	---	--	---

Explanation

excess Hb in ill-bled meat
+
nascent O liberated from H₂O₂ 3%
+
Acid malachite green



oxy haemoglobin
malachite green
Complex
(green Colour)





Two test tubes are shown, held by a hand. The left test tube contains a dark, opaque liquid, and the right test tube contains a green, opaque liquid. Both liquids are circled in blue. Handwritten blue text labels the left tube as 'Moderate Bled' and 'Reagent 5', and the right tube as 'Moderate Bled'. There is also some additional handwritten text on the left side of the image.

Reder's Test

Def : Chemical test used for diagnosis of Bleeding

Principle : Change in colour of indicator acc. to blood amount present in the sample

Procedure



3 gm minced meat

8 ml Reder's Reagent

0.1 ml Loeffler's Methylene blue

40 ml D.W

0.05 ml of diluted Carbol Fuchsin Soln

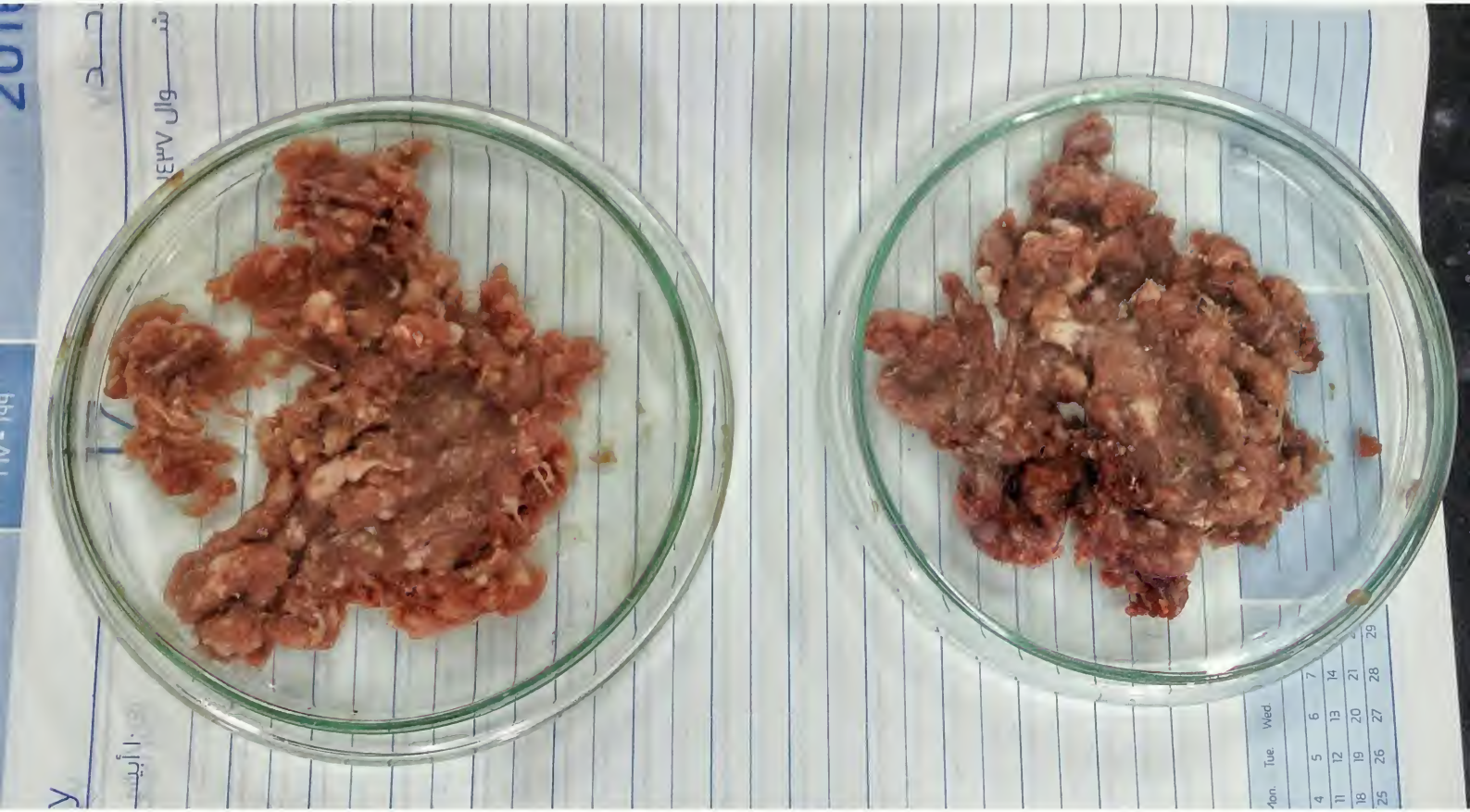
Result & Judgment

Blue Colour
well bled fit
for ~~human~~
human Consumption

Light green
moderate bled
fit for rapid
Consumption

Dark green almost
Brownish
ill bled - total
Condemnation





Mon.	Tue	Wed
4	5	6
11	12	13
18	19	20
25	26	27
	28	29

بنفس
Reagent
عن طريق الزجاجه
وليس عن
طريق
Pipete

قد عتلة
الاصبع
عنه الامه

بناخذها
بالايد
من الطبقة

111
Bled



Moderate
Bled

Nitrazine yellow indicator test

Def: Test used for measurement of meat pH
~~Standard~~.

Principle: Change Colour of indicator according to pH degree

equipment

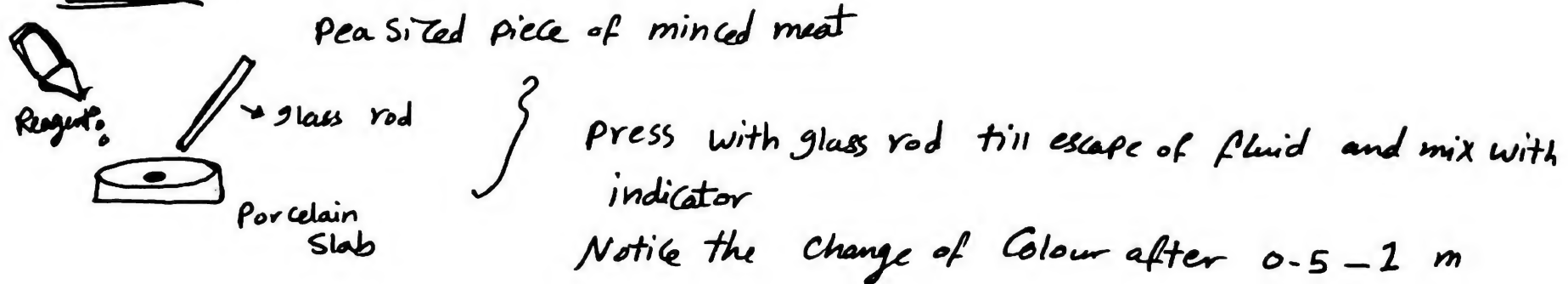
minced meat (pea size)

glass rod

small dish

Reagent (Nitrazine yellow 0.01%) aqueous solution
 $\left\{ 1 \text{ gm} / \frac{10 \text{ L}}{\text{water}} \right\}$

Procedure



Result, Judgment

Yellow Colour

$\text{pH} \leq 6$

Pass for human Consumption

Blue Colour

$\text{pH} \geq 6.8$

unfit for " "











Rapid phase test

~~Def~~
Def

Laboratory test used for detection of abnormal colour of Carcasses

Material

Chopped fat
NaOH 5%
Diethyl ether

Procedure



5 ml NaOH 5%
5 gm Chopped fat

→ Shake up → heat on flame

for about 2 min till complete dissolving of fat → Cooling under running tap water

→ add 5 ml diethyl ether → Shake well
→ leave the contents in the tube till separation into 2 layers → Observe colour of both layers

Result



Colourless
Colourless

Normal
Buffalo



yellow
(yellow greenish)

icteric
Cattle



yellow
Colourless

Normal
Cattle



Colourless
(greenish yellow)

icteric
Buffalo

Judgment

Physiological yellow coloured carcass

↳ pass for human consumption

Marked discolouration of carcass

↳ unfit for human consumption

Slight discolouration

↳ Chilling for 24 hrs → boiling test
if absence of fecal odour → pass
for human consumption



Sod. hydroxide 5%

DIETHYL
ETHER

میکون
سوخته
از دست
✓

لنسخن الحديد
تدريجاً الدفوع
و بعد من نبرد الحث
معة الحفنة



Normal Buffalo
icteric Cattle

اعتياح الموصودة في القم



Eber's test

Def: Chemical test used for qualitative detection of Ammonia in decomposed meat sample

Reagent

Mixture of

1 part : 1 part of : 3 Parts of
HCl with sp. Gr 1.125 Diethyl ether ethanol 96%

Procedure



Quickly push glass rod in meat and rotate it so that a small piece of the sample can be removed with the rod. Then replace the corked rod to the tube provided the meat doesn't contact the reagent

Result

Grey or white Cloudiness within seconds if the sample contain 26 mg% or more of ammonia. This cloudiness is better seen if a black ground is put behind the test tube

Precautions 1- The test tube corked well and placed in ammonia free atmosphere

2- Temp of meat shouldn't be colder than the Reagent's

3- in Cured meat (pickled) take care during test as ammonia will be formed due to reduction of the salt peter NaNO_3 or KNO_3 although there is no putrefaction

4- Don't touch wall of the tube or introduce the sample in it

5- The free end of the glass rod should be above the level of the reagent surface by 1 cm

the formed Cloudiness Consists of ammonium, Chloride which result from the reaction between HCL of the Reagent and ammonia of the decomposed meat

العسلية

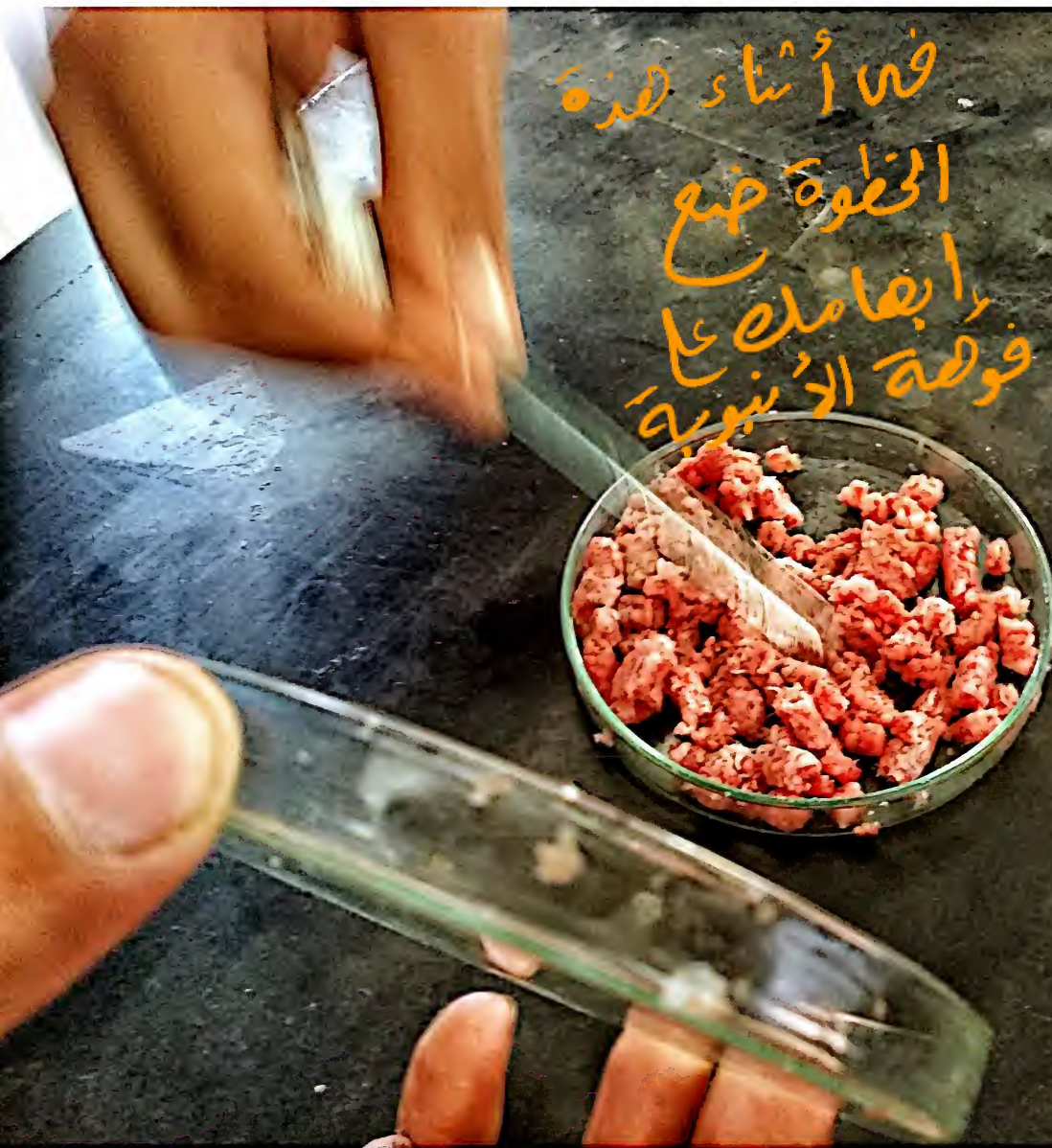


صمغ أششم
الريحة مبل
ماء أشقل
صلصة
رعة
الأمويا

في أناس هذه
الخطوة ضع
أبصارك على
قوة الأنبوبة

Push the glass
rod in meat
and rotate it

To take
small
piece



عمر کون
سیر

-ve



Glass rod
Not Contact
With the tube
and above
the level of
the Reagent

السحب
المائل

+ve

أندرسون
النسري
أفضل
على

شعيرة
سوداء

